SJE-Rhombus®

Installation and Operating Instructions

SJE VERTICALMASTER® PUMP SWITCH U.S. Patent No. 5,155,311 & Canadian Patent Pending.

SJE VERTICALMASTER® II PUMP SWITCH U.S. Patent No. 6,140,925 & Foreign Patents Pending.

SJE-Rhombus® pump switches provide automatic control of pumps in sump, effluent, and non-potable water applications.

SPECIFICATIONS

This equipment is suitable for Category II installations, rated to 52ºC, and protected by double insulation.
Approved for use in non-potable water.

SJE VERTICALMASTER® PUMP SWITCH

CABLE: Flexible 16 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)

MOUNTING BRACKET & HOSE CLAMP: Stainless steel

LIFT ROD: Acetal

LIFT ROD STOP PIN: Nylon

FLOAT STOP GROMMET: Neoprene

SWITCH AND FLOAT HOUSING: high impact, corrosion resistant, PVC
Switch and Float Overall: 30.5 cm high x 12.7 cm x 7.6 cm wide
Switch Housing: 5 cm high x 7.1 cm wide, has IPX7 protection
Float Housing: 6.4 cm high x 6.9 cm wide

ELECTRICAL:
120 VAC Rated Voltage:
Maximum Pump Running Current: 13 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

230 VAC Rated Voltage:
Maximum Pump Running Current: 13 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

Switch must be used with pumps that provide integral thermal overload protection. Switch is not recommended for controlling electric loads less than 2A, 12 VAC or non-arcing electric loads.

SJE VERTICALMASTER® II PUMP SWITCH

CABLE:
Flexible 18 gauge, 2 conductor (UL, CSA) SJOW, water-resistant (CPE)

MOUNTING BRACKET & HOSE CLAMP: Stainless steel

LIFT ROD: Acetal

LIFT ROD STOP PIN: Nylon

FLOAT STOP GROMMET: Neoprene

SWITCH AND FLOAT HOUSING: high impact, corrosion resistant, PVC
Switch and Float Overall: 30.5 cm high x 12.7 cm x 7.6 cm wide
Switch Housing: 5 cm high x 7.1 cm wide, has IPX7 protection
Float Housing: 6.4 cm high x 6.9 cm wide

ELECTRICAL:
125 VAC Rated Voltage:
Maximum Pump Running Current: 10 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

250 VAC Rated Voltage:
Maximum Pump Running Current: 10 amps
Maximum Pump Starting Current: 60 amps
Frequency: 50/60 Hz

Switch must be used with pumps that provide integral thermal overload protection. Switch is not recommended for controlling electric loads less than 100 miliamps, 12 VAC or non-arcing electric loads.

SJE-RHOMBUS® THREE-YEAR LIMITED WARRANTY

SJE-RHOMBUS® warrants to the original consumer that this product shall be free of manufacturing defects for three years after the date of consumer purchase. During that time period and subject to the conditions set forth below, **SJE-RHOMBUS®** will repair or replace, for the original consumer, any component which proves to be defective due to defective materials or workmanship of **SJE-RHOMBUS®**.

THIS EXPRESS WARRANTY DOES NOT APPLY TO THE MOTOR START KIT COMPONENT. SJE-RHOMBUS® MAKES NO WARRANTIES OF ANY TYPE WITH RESPECT TO THE MOTOR START KIT.

ELECTRICAL WIRING AND SERVICING OF THIS PRODUCT MUST BE PERFORMED BY A LICENSED ELECTRICIAN.

THIS WARRANTY DOES NOT APPLY: (A) to damage due to lightning or conditions beyond the control of **SJE-RHOMBUS®**; **(B)** to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided; **(C)** to failures resulting from abuse, misuse, accident, or negligence; **(D)** to units which are not installed in accordance with applicable local codes, ordinances, or accepted trade practices, and **(E)** to units repaired and/or modified without prior authorization from **SJE-RHOMBUS®**.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

TO OBTAIN WARRANTY SERVICE: The consumer shall assume all responsibility and expense for removal, reinstallation, and freight. Any item to be repaired or replaced under this warranty must be returned to **SJE-RHOMBUS®**, or such place as designated by **SJE-RHOMBUS®**.

ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. SJE-RHOMBUS® SHALL NOT, IN ANY MANNER, BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AS A RESULT OF A BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.

⚠WARNING **ELECTRICAL SHOCK HAZARD**

Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.

⚠WARNING **EXPLOSION OR FIRE HAZARD**

Do not use this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70.

Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, float housing, or cable.

For detailed specifications on this product, or for the complete line of SJE-Rhombus® panel, alarm, and switch products, visit our web site at www.sjerhombus.com.

INSTALLING THE SWITCH

Warning: Do not install switch in direct line of incoming liquid.

1. Determine desired activation level and pumping range as shown in Figure A. Pumping range can be adjusted by moving the float stop up or down the rod.
2. Insert hose clamp through slots in mounting bracket as shown in Figure B.
3. Position hose clamp around discharge pipe with bracket gripping tabs against pipe. Cable should remain outside of hose clamp.
4. Tighten the hose clamp securely.
5. Secure pump cable and switch cable to discharge pipe as shown in Figure A with wire ties (not supplied).
6. Wire switch as shown in Figure D.
7. Check the installation. Verify that the float is free to move and activate the switch. Allow system to cycle to ensure proper operation.

Figure A

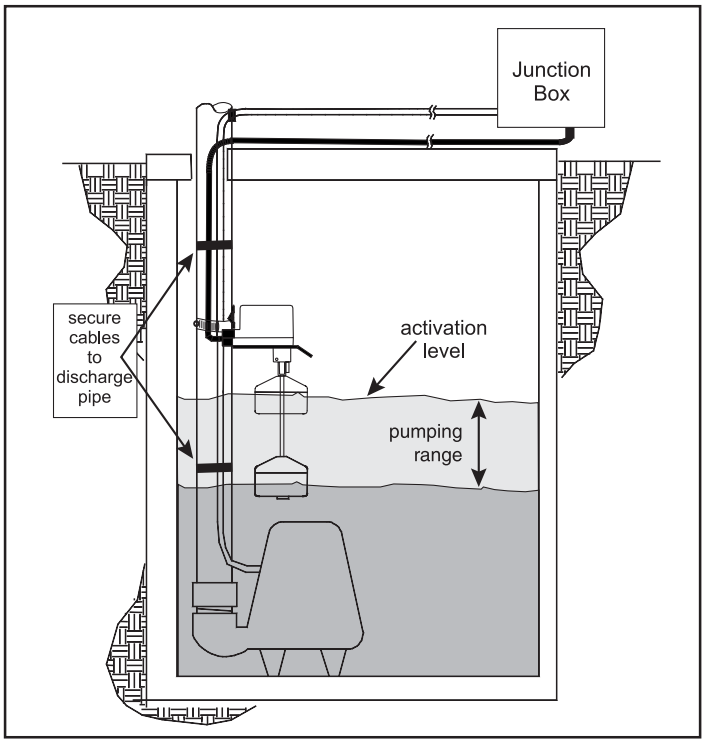


Figure B

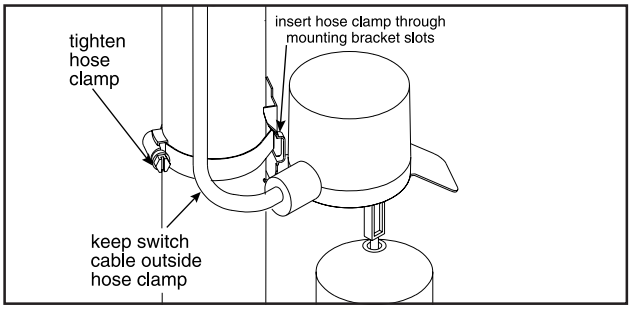


Figure C

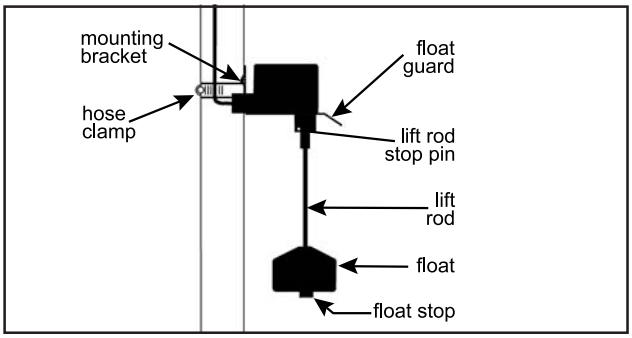
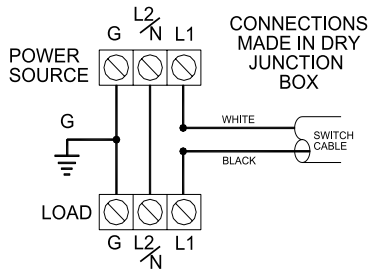


Figure D

125/250 VAC
Normally Open/Pump Down



⚠WARNING In 230 VAC installations with line to ground voltage of 115 VAC, one line of the circuit will always be **HOT** at the load. This condition exists if the switch is on or off. Install double pole disconnects on these circuits.

PREVENTATIVE MAINTENANCE

- Periodically inspect the product. Check that the cable has not become worn or that the housing has not been damaged so as to impair the protection of the product. Replace the product immediately if any damage is found or suspected.
- Periodically check to see that the float and rod are free to move and operate the switch.
- Use only SJE-Rhombus® replacement parts.

SJE-Rhombus®

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Instl. Instr. PN 1012083C

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